

figure 1

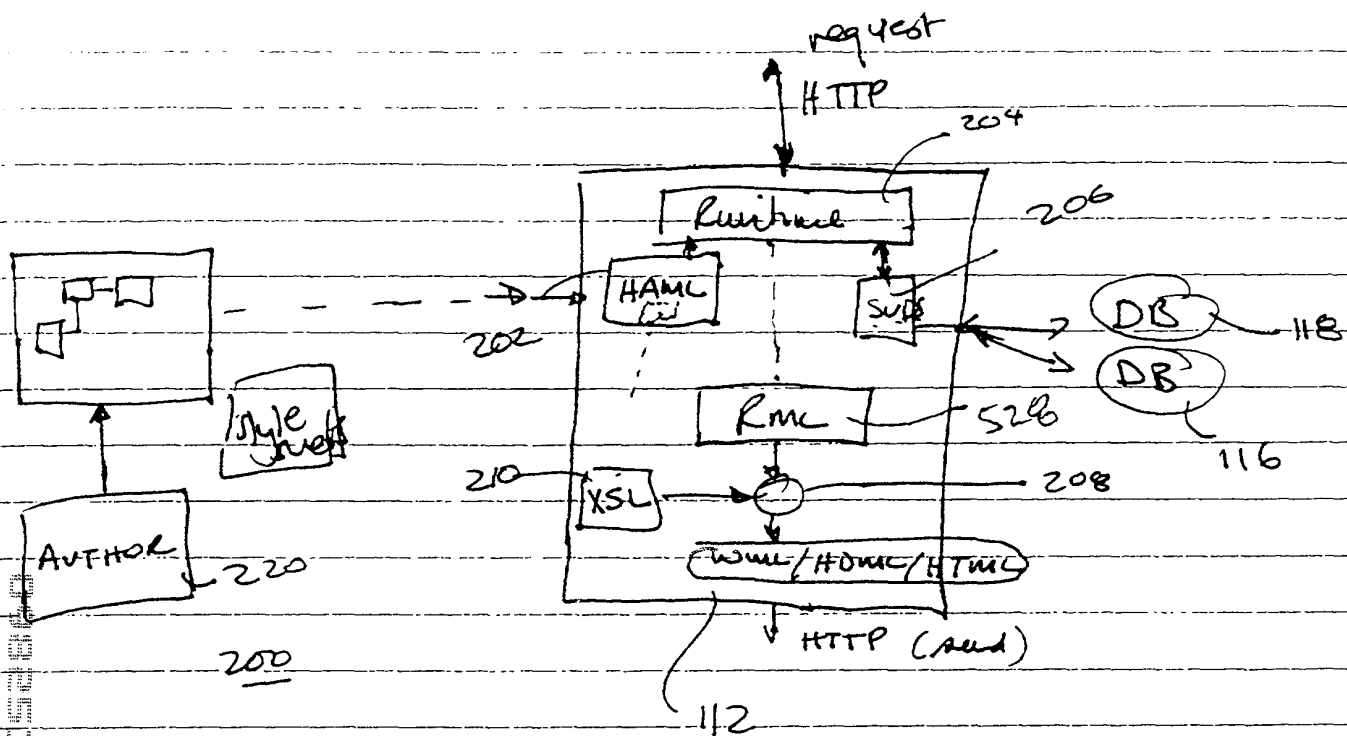


Figure 2

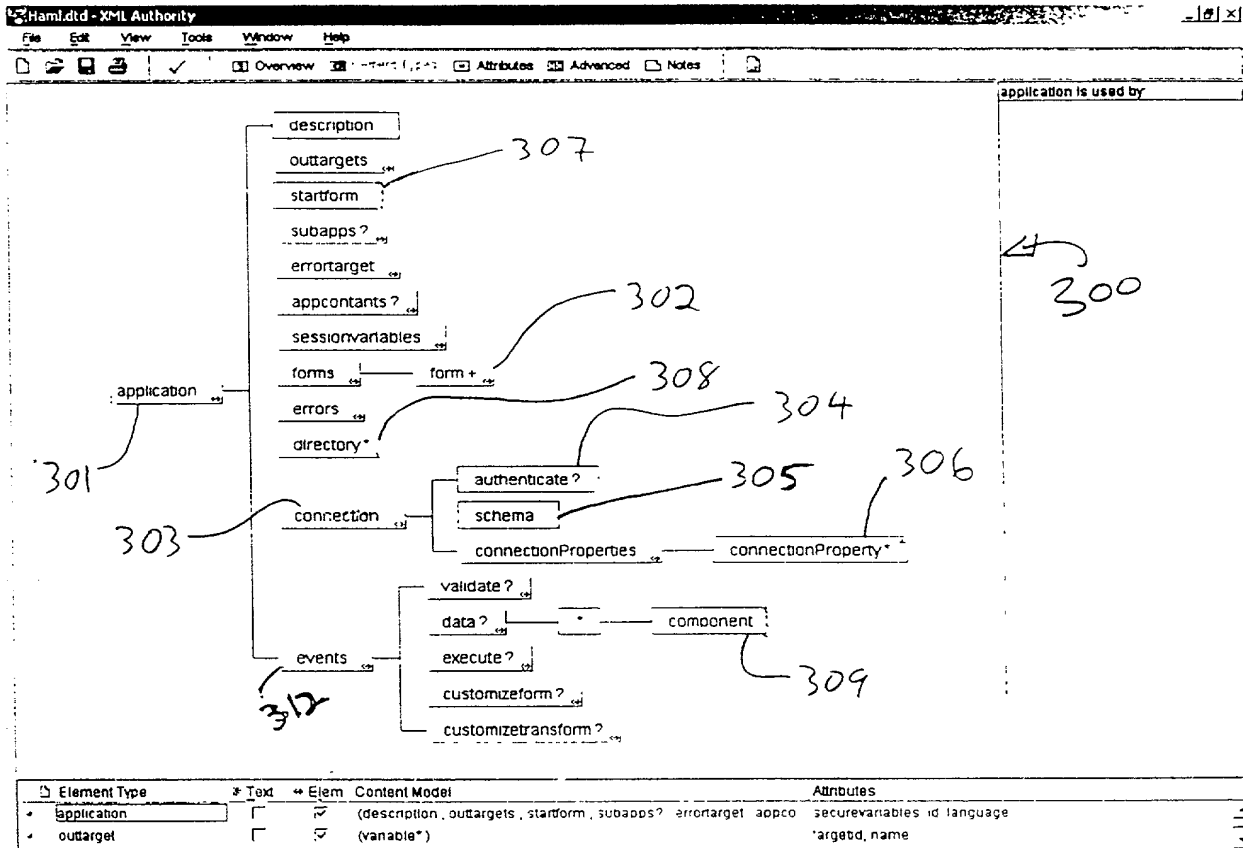


Figure 3

04040"05222860

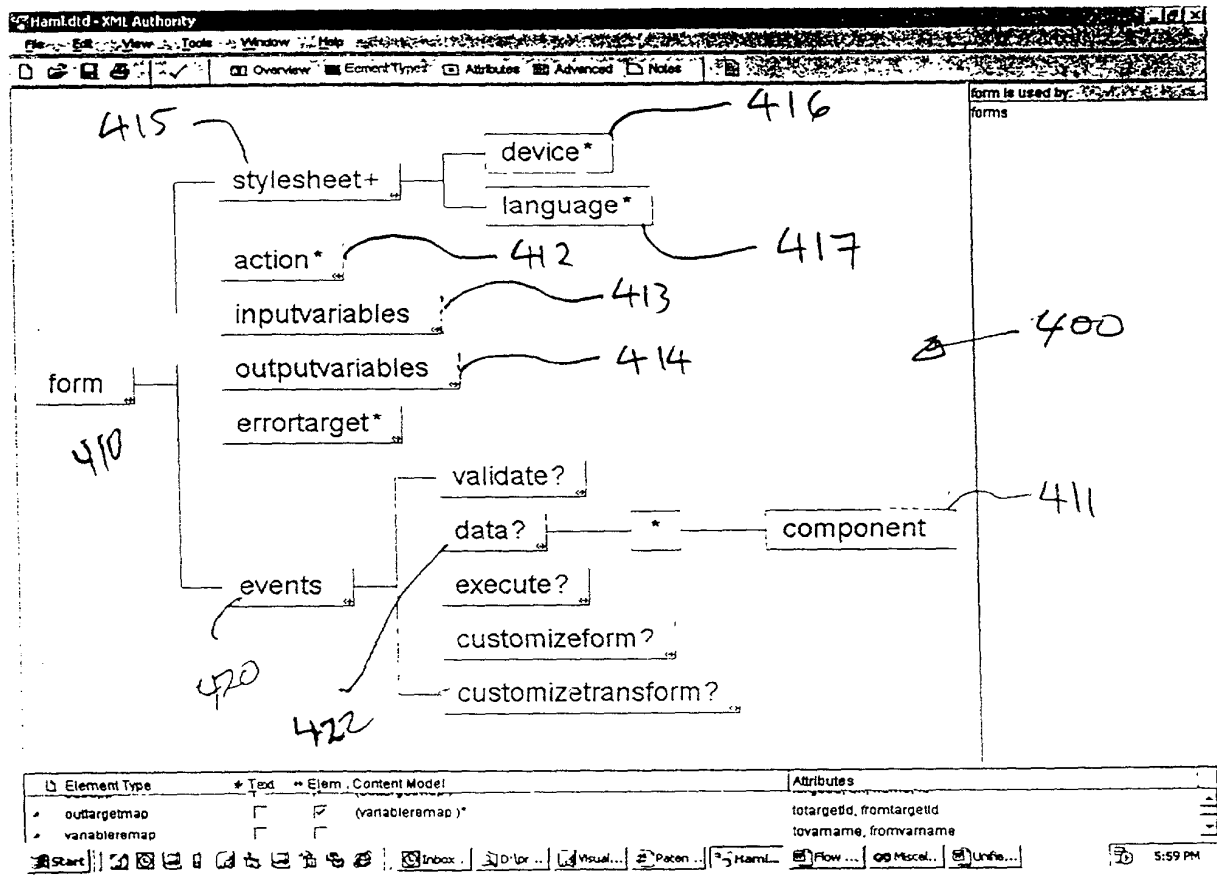


Figure 4



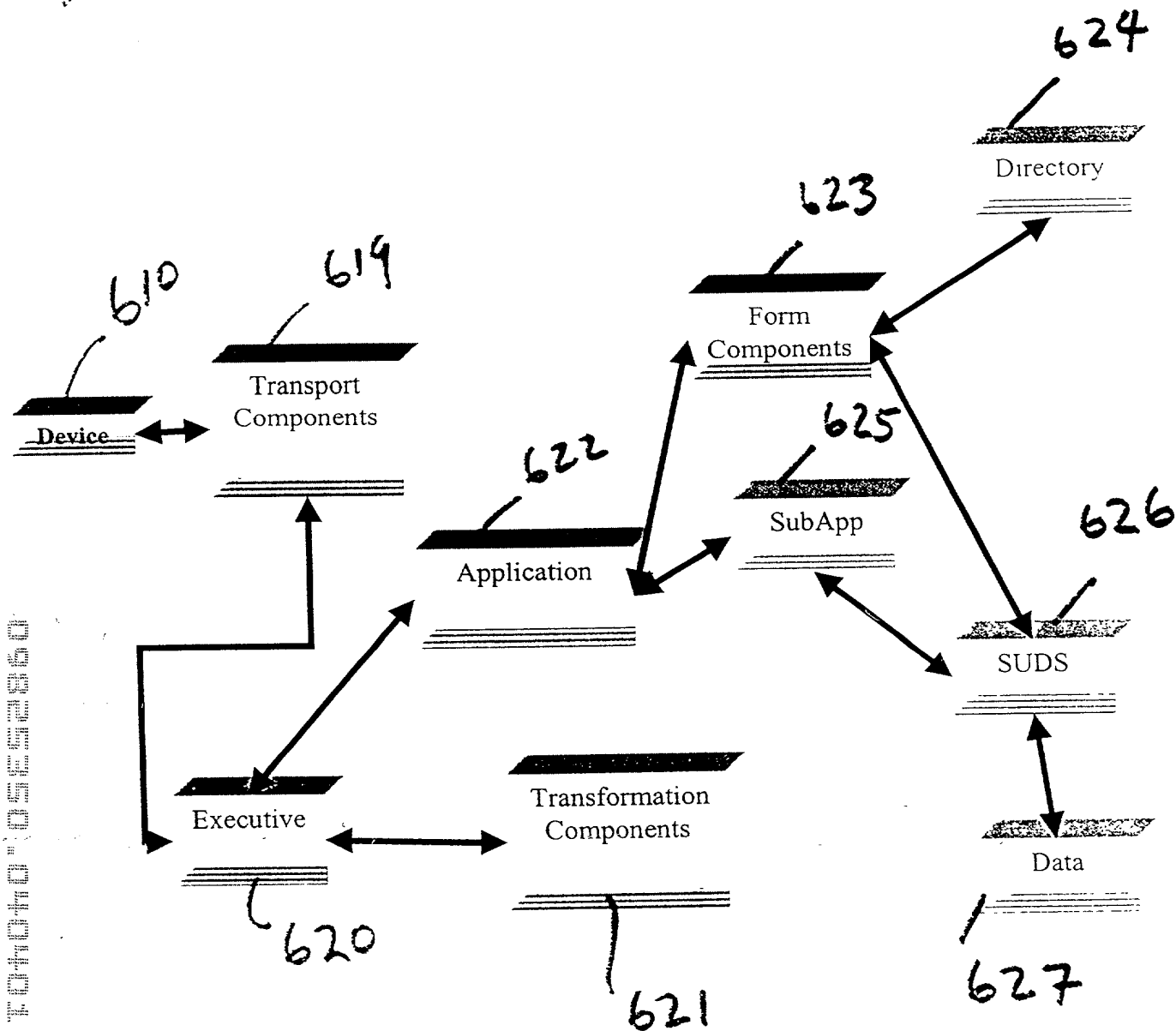


Fig 6

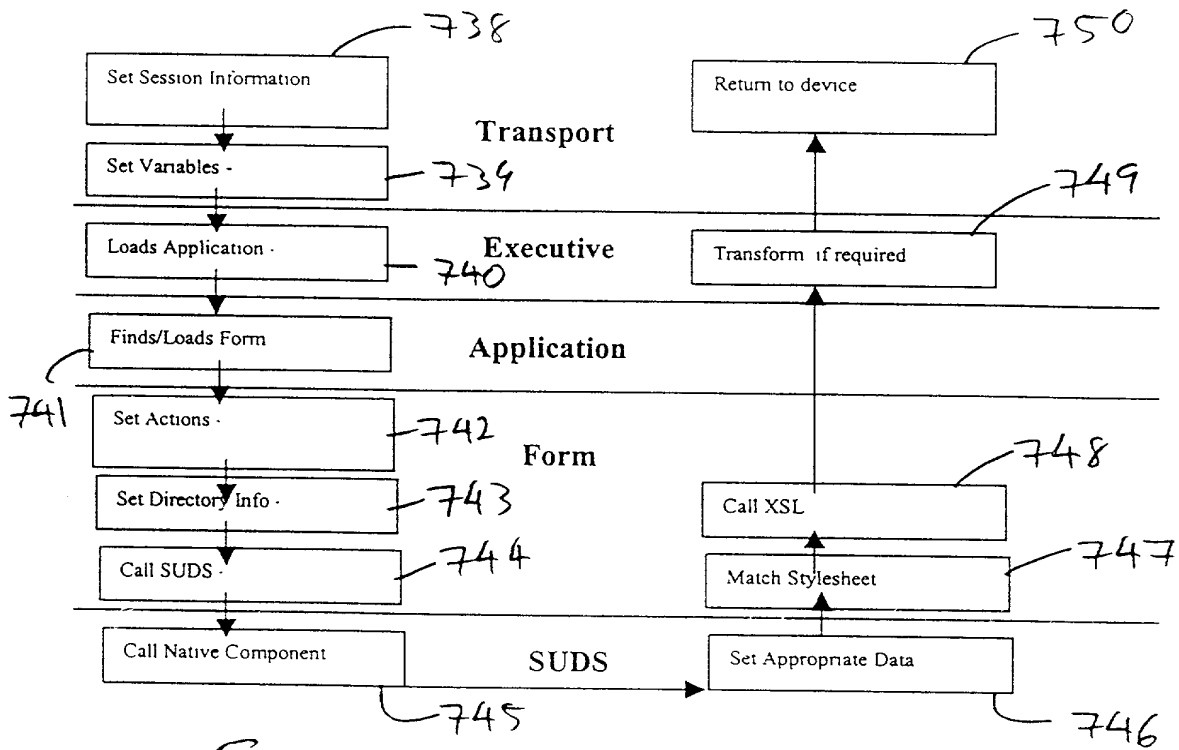


Figure 7

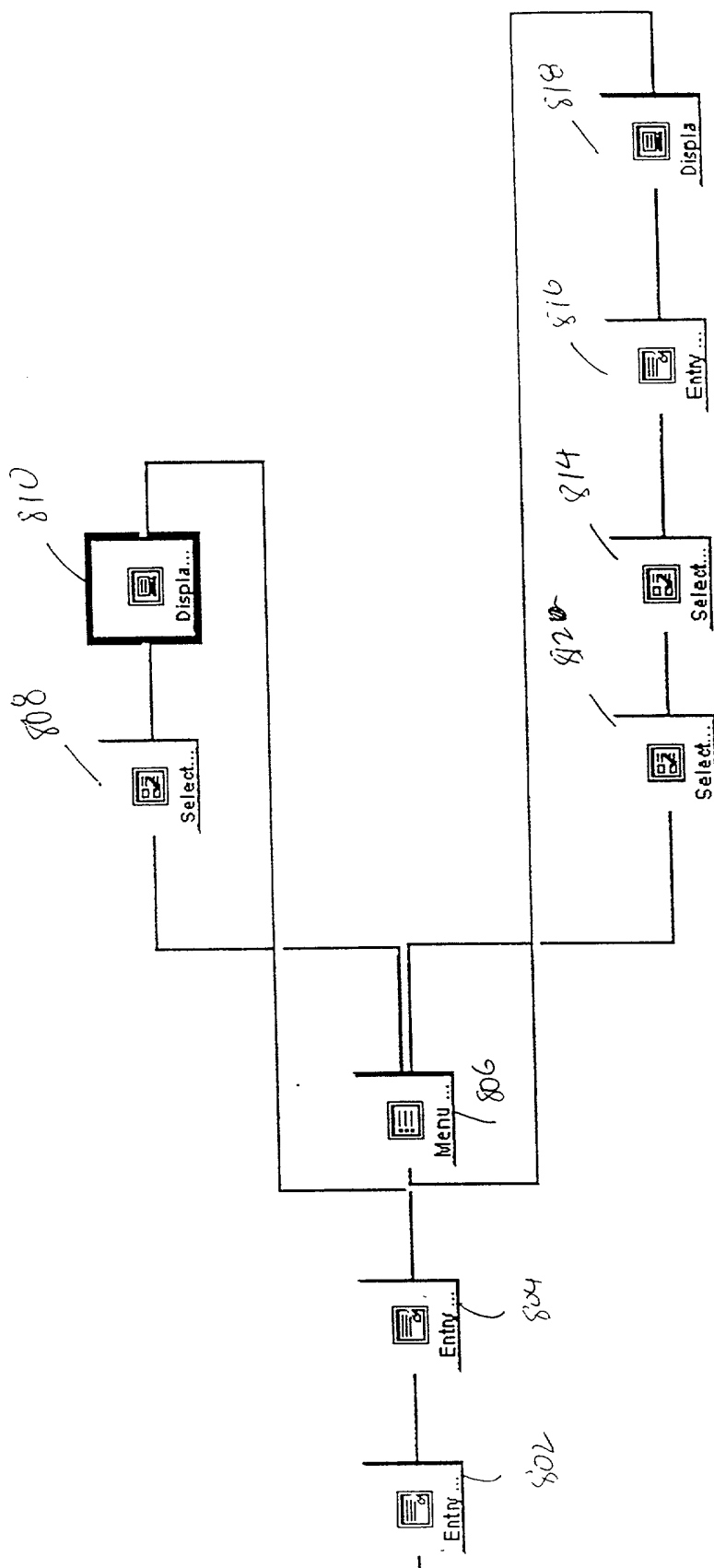


Figure 8(a)



<?xml version="1.0" encoding="UTF-8" ?>  
 - <application usecookies="false" id="{F6681A6F-FB7C-4901-855C-08791DDE8DC8}"  
   securevariables="false">  
     <description version="1" name="MQBanking" />  
     <outtargets />  
     <startform totargetid="UserID" />  
     <subapps />  
     <errortarget totargetid="UserID" />  
 - <properties>  
   <variable default="209.23.23.23" name="ServerIP" />  
 </properties>  
 - <sessionvariables>  
   <variable name="Session" />  
 </sessionvariables>  
 - <forms>  
   - <form targetid="UserID" includeheaders="false">  
     <stylesheet contenttype="WML11" url="http://www.mobileq.com" />  
     <action totargetid="Password" name="OK" />  
     <inputvariables />  
   - <outputvariables>  
     <variable name="UserID" />  
   </outputvariables>  
   <events />  
   </form>  
   - <form targetid="Password" includeheaders="false">  
     <stylesheet contenttype="WML11" url="http://www.mobileq.com" />  
     <action totargetid="Main" name="OK" />  
   - <inputvariables>  
     <variable name="UserID" />  
   </inputvariables>  
   - <outputvariables>  
     <variable name="Session" />  
   </outputvariables>  
   <events />  
   </form>  
   - <form targetid="Main" includeheaders="false">  
     <stylesheet contenttype="WML11" url="http://www.mobileq.com" />  
     <action totargetid="Account" name="Account Balance" />  
     <action totargetid="Bill Payment" name="Bill Payment" />  
     <action totargetid="Transfer" name="Account Transfer" />  
     <inputvariables />  
     <outputvariables />  
     <events />  
   </form>  
   - <form targetid="Account" includeheaders="false">  
     <stylesheet contenttype="WML11" url="http://www.mobileq.com" />  
     <action totargetid="Details" name="OK" />  
   <inputvariables />  
   - <outputvariables>  
     <variable name="AccountID" />  
   </outputvariables>

Fig 8(b)

```

    <events />
</form>
- <form targetid="Details" includeheaders="false">
    <stylesheet contenttype="WML11" url="http://www.mobileq.com" />
    <action totargetid="Main" name="OK" />
    - <inputvariables>
        <variable name="AccountID" />
    </inputvariables>
    <outputvariables />
    <events />
</form>
- <form targetid="Bill Payment" includeheaders="false">
    <stylesheet contenttype="WML11" url="http://www.mobileq.com" />
    <action totargetid="Bill" name="OK" />
    <inputvariables />
    - <outputvariables>
        <variable name="AccountID" />
    </outputvariables>
    <events />
</form>
- <form targetid="Bill" includeheaders="false">
    <stylesheet contenttype="WML11" url="http://www.mobileq.com" />
    <action totargetid="Amount" name="OK" />
    - <inputvariables>
        <variable name="AccountID" />
    </inputvariables>
    - <outputvariables>
        <variable name="BillID" />
        <variable name="AccountID" />
    </outputvariables>
    <events />
</form>
- <form targetid="Amount" includeheaders="false">
    <stylesheet contenttype="WML11" url="http://www.mobileq.com" />
    <action totargetid="Confirm" name="OK" />
    - <inputvariables>
        <variable name="BillID" />
        <variable name="AccountID" />
    </inputvariables>
    - <outputvariables>
        <variable name="AccountID" />
        <variable name="BillID" />
        <variable name="Amount" />
    </outputvariables>
    <events />
</form>
- <form targetid="Confirm" includeheaders="false">
    <stylesheet contenttype="WML11" url="http://www.mobileq.com" />
    <action totargetid="Main" name="Cancel" />
    - <inputvariables>
        <variable name="AccountID" />
        <variable name="BillID" />

```

Fig 8(c)



```

- <rm!>
- <dataresults>
- <data name="source1">
- <RECORDS>
- <RECORD>
  <Blair PK="1">172-32-1176</Blair>
  <Test1 PK="1">1</Test1>
  <Test2 PK="1">2</Test2>
  <Test3 PK="1">3</Test3>
  <LastName>White</LastName>
  <FirstName>Johnson</FirstName>
</RECORD>
- <RECORD>
  <Blair PK="1">213-46-891</Blair>
  <Test1 PK="1">1</Test1>
  <Test2 PK="1">2</Test2>
  <Test3 PK="1">3</Test3>
  <LastName>Green</LastName>
  <FirstName>Marjorie</FirstName>
</RECORD>
- <RECORD>
  <Blair PK="1">238-95-7766</Blair>
  <Test1 PK="1">1</Test1>
  <Test2 PK="1">2</Test2>
  <Test3 PK="1">3</Test3>
  <LastName>Carson</LastName>
  <FirstName>Cheryl</FirstName>
</RECORD>
- <a>
- <RECORD>
  <Blair PK="1">238-95-7766</Blair>
  <Test1 PK="1">1</Test1>
  <Test2 PK="1">2</Test2>
  <Test3 PK="1">3</Test3>
  <LastName>Carson</LastName>
  <FirstName>Cheryl</FirstName>
</RECORD>
</a>
- <a>
- <b>
- <RECORD>
  <Blair PK="1">238-95-7766</Blair>
  <Test1 PK="1">1</Test1>
  <Test2 PK="1">2</Test2>
  <Test3 PK="1">3</Test3>
  <LastName>Carson</LastName>
  <FirstName>Cheryl</FirstName>
</RECORD>
</b>
</a>
</RECORDS>

```

Fig 9(a)





```

- <xsl:stylesheet xmlns:xsl="http://www.w3.org/TR/WD-xsl">
- <xsl:template match="/">
- <wml>
- <head>
  <meta name="FormType" content="SQSelectForm" />
  <meta name="ListMethod" content="numeric" />
</head>
- <card>
  <xsl:attribute name="title">qwe</xsl:attribute>
- <p>
  - <select>
    <xsl:attribute name="title">qwe</xsl:attribute>
    <xsl:attribute name="name">asd</xsl:attribute>
    - <xsl:for-each select="/rml/dataresults/data
      [@name='source2']//RECORD">
      - <option>
        - <xsl:attribute name="value">
          <xsl:value-of select="Blair" />
          z1z
          <xsl:value-of select="Test1" />
          z1z
          <xsl:value-of select="Test2" />
          z1z
          <xsl:value-of select="Test3" />
        </xsl:attribute>
        - <xsl:attribute name="title">
          <xsl:value-of select="LastName" />
          '
          <xsl:value-of select="FirstName" />
          '
          <xsl:value-of select="/rml/data
            [@name='source1']/RECORDS/RECORD/Blair" />
        </xsl:attribute>
        blah blah blah
      </option>
    </xsl:for-each>
  </select>
</p>
- <xsl:for-each select="/rml/actions//action">
- <do>
  <xsl:attribute name="type">accept</xsl:attribute>
  - <xsl:attribute name="label">
    <xsl:value-of select="@actionid" />
  </xsl:attribute>
  - <go>
    - <xsl:attribute name="href">
      <xsl:value-of select="@querystring" />
    </xsl:attribute>
  </go>
</do>
</xsl:for-each>
</card>

```

Fig 10(a)

```
</wml>  
</xsl:template>  
</xsl:stylesheet>
```

FIG. 10(b)

Fig 10(b).







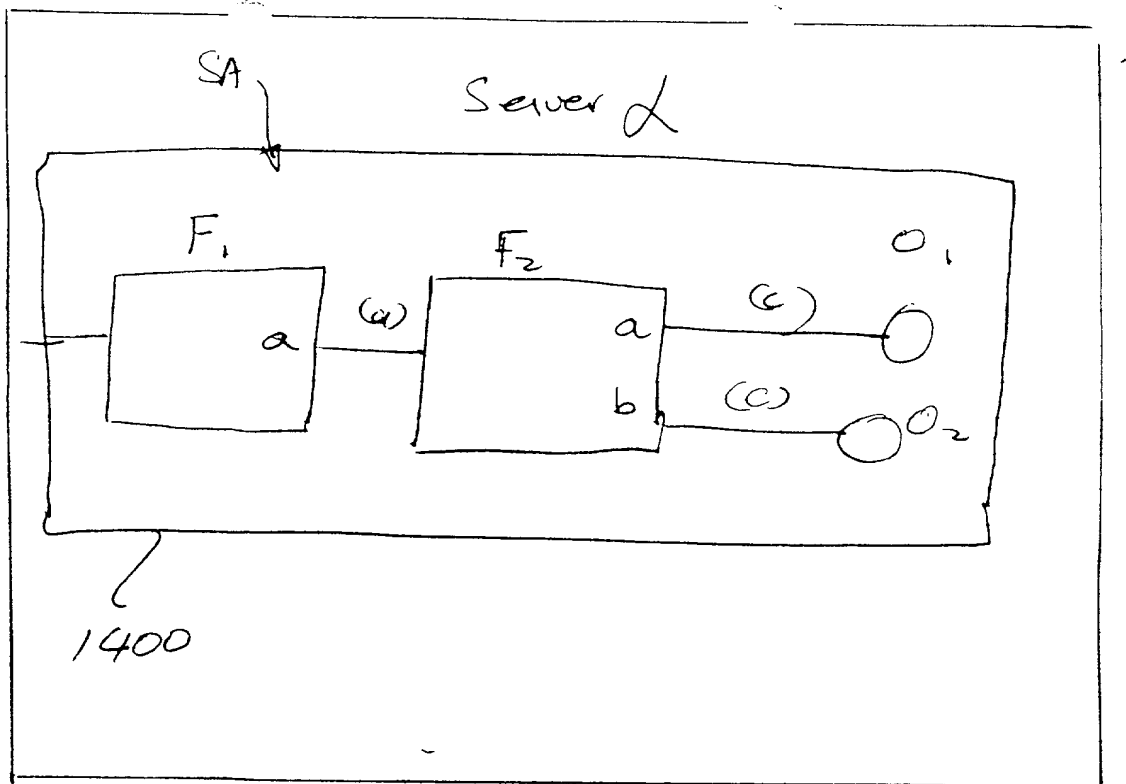


Figure 14.

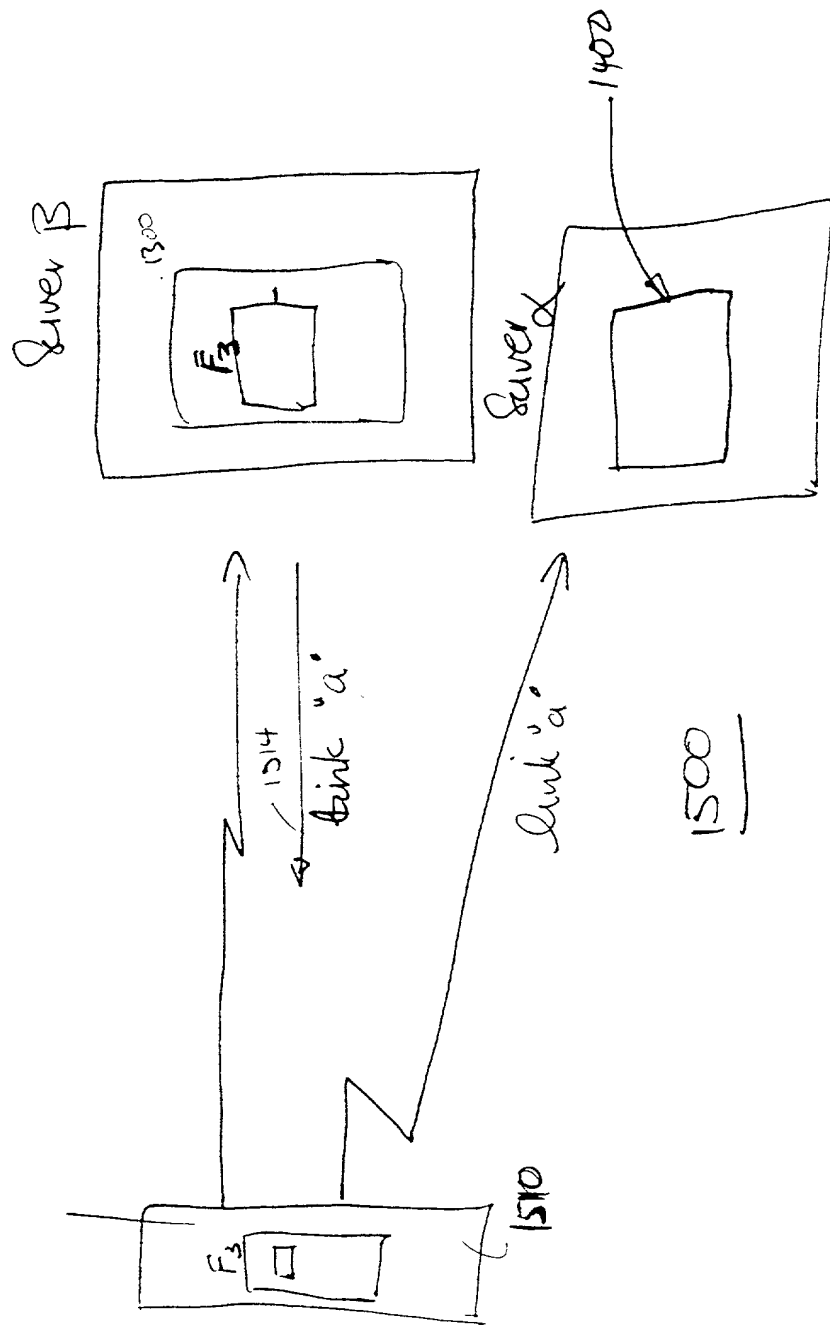


Fig 15

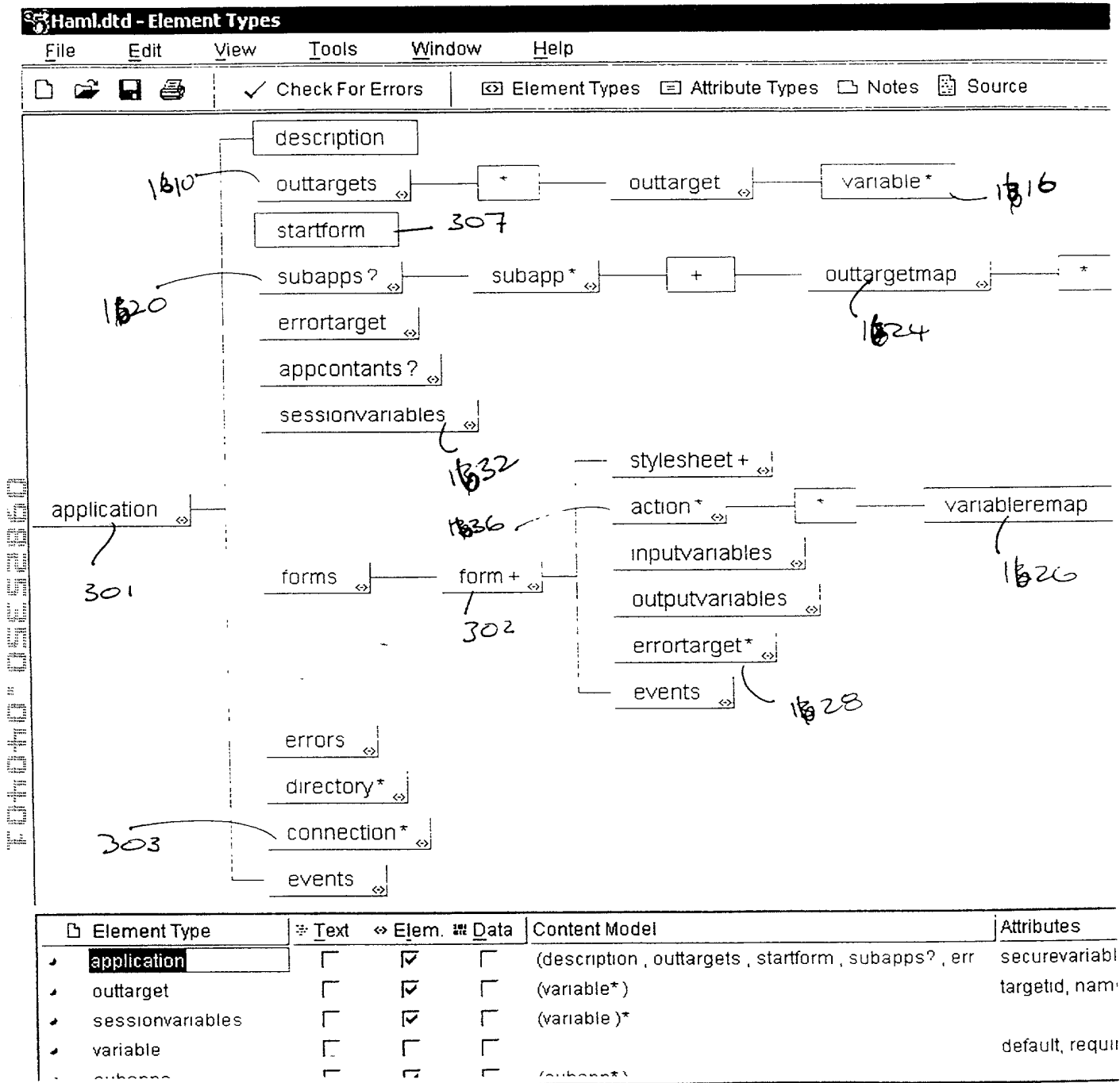


Figure 16

#### Receive request

- Determine request signature
  - app
  - targetid
  - language
  - markup
- Add to Runtime XML (RML)
  - Request signature
  - Dictionary element containing the Name/value pairs from request
- Load app
- Pass RML to app
- Process app
  - Find targetid?
    - Subapp
      - Load subapp
      - Pass RML to app
      - Process app
    - Form
      - Generate Action urls and add them to the RML
        - If no cookies
          - Include all variables
            - Remap to new names as described in HAML
      - Find a StyleSheet that matches the language and markup requested
      - Process Stylesheet
- If cookies are on and the device supports cookies
  - Build cookie creation instructions for
    - Out variables in the RML
      - Remap to new names as described in HAML
    - Session variables in the RML
      - Remap to new names as described in HAML
- Return generated markup

Fig 17